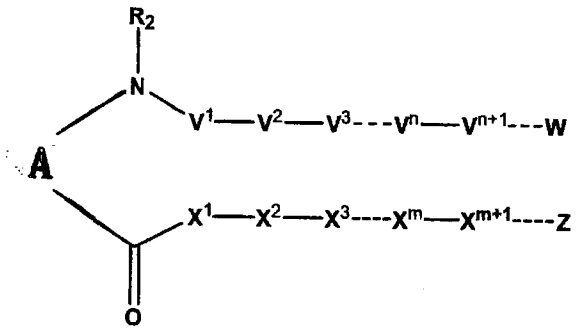
AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ferrocene compound represented by the following ~~general~~ formula (I):

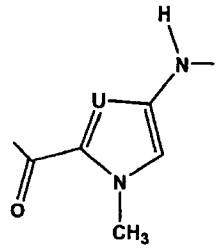
~~[Chemical Formula 1]~~



(I)

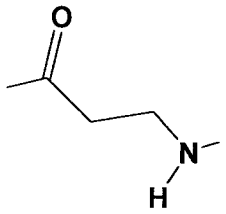
wherein ~~"A"~~ A represents a divalent ferrocene-containing linker or ferrocene-1,1'-yl, R_2 represents a hydrogen atom or alkyl; ~~"n" and "m"~~ n and m represent any natural numbers; and wherein each of V^1 to V^{n+1} and each of X^1 to X^{m+1} is independently represented by ~~"V" and "X" represent~~ the following ~~general~~ formula (II) or (II-1):

~~[Chemical Formula 2]~~



(II)

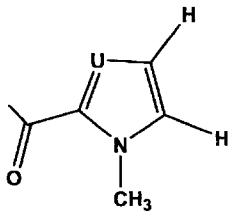
~~[Chemical Formula 3]~~



(II-1)

~~"W"~~ W represents the following ~~general~~ formula (III):

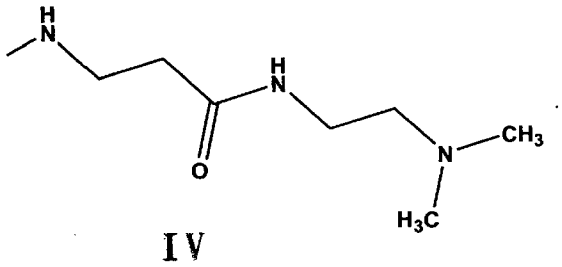
~~[Chemical Formula 4]~~



III

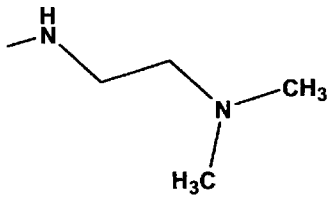
wherein ~~"U"~~ U in the ~~general~~ formulae (II) and (III) represents a nitrogen atom, methine or hydroxymethine; and ~~"Z"~~ Z represents the following ~~general~~ formulae (IV) or (V):

~~[Chemical Formula 5]~~



IV

~~[Chemical Formula 6]~~



V

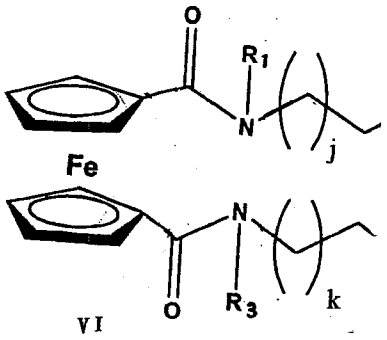
and both ends of each of V^n and X^m in the ~~general~~ formula (I) form a (-CO-NH-) bond except that a bond on the side of the ferrocene-containing linker or ferrocene-1,1'-yl of V^1 is (-CO-NR_2-).

2. (Currently Amended) The ferrocene compound according to Claim 1 wherein ~~"n" and "m"~~ n and m are natural numbers in the range of 3 – 20.

3. (Withdrawn - Currently Amended) The ferrocene compound according to Claim 1 or 2 wherein the number of ~~"n"~~ n is smaller by one than that of[["m."]] m.

4. (Currently Amended) The ferrocene compound according to Claim 1 wherein the ferrocene-containing linker is represented by the following ~~general~~ formula (VI):

~~[Chemical Formula 7]~~

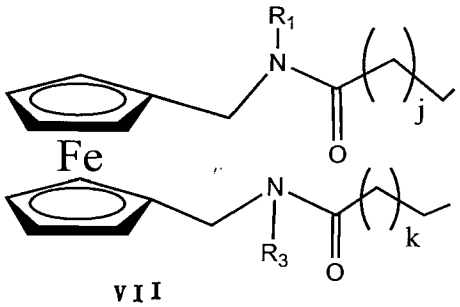


VI

wherein R_1 and R_3 represent a hydrogen atom or alkyl; ~~"j" and "k"~~ j and k represent the same or different integer of from 0 to 5.

5. (Withdrawn - Currently Amended) The ferrocene compound according to Claim 1 represented by the following ~~general~~ formula (VII):

~~[Chemical Formula 8]~~



VII

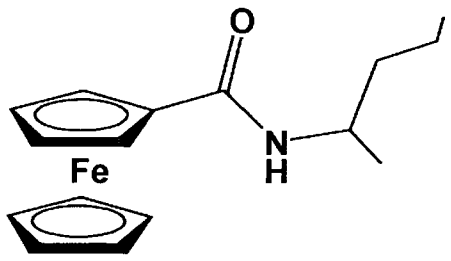
wherein R_1 and R_3 represent a hydrogen atom or alkyl; ~~"j" and "k"~~ j and k represent the same or different integer of from 0 to 5.

6. (Currently Amended) The ferrocene compound according to ~~Claim 1~~ Claim 4 wherein ~~"j" and "k"~~ j and k are 1.

7. (Currently Amended) The ferrocene compound according to ~~Claim 1~~ Claim 4 wherein R_1 and R_3 represent a hydrogen atom.

8. (Withdrawn - Currently Amended) The ferrocene compound according to Claim 1 wherein the ferrocene-containing linker is represented by the following ~~general~~ formula (X):

~~[Chemical Formula 9]~~

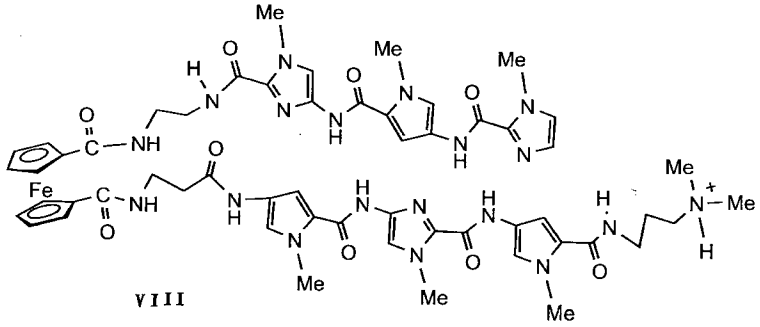


X

9. (Withdrawn) The ferrocene compound according to Claim 1 wherein R_1, R_2 and R_3 represent alkyl having one or several carbon atoms.

10. (Withdrawn - Currently Amended) The ferrocene compound represented by the following formula (VIII):

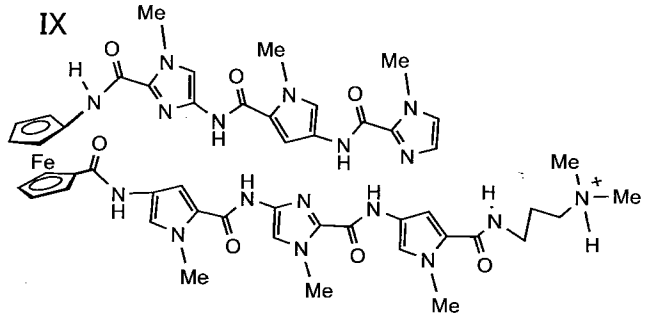
~~[Chemical Formula 10]~~



VIII

11. (Withdrawn - Currently Amended) The ferrocene compound represented by the following formula (IX):

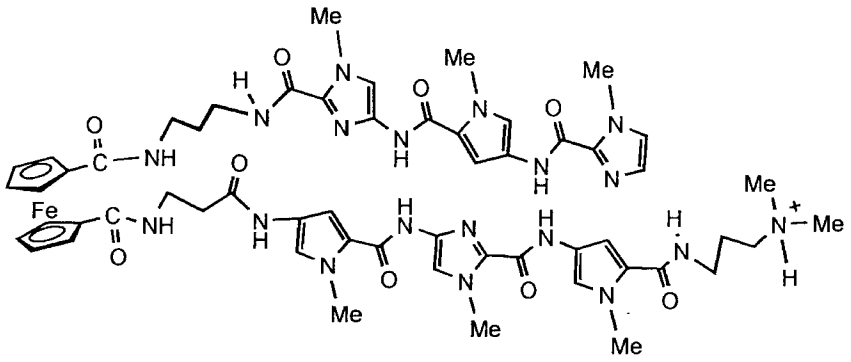
~~[Chemical Formula 11]~~



IX

12. (Withdrawn - Currently Amended) The ferrocene compound represented by the following formula (1b):

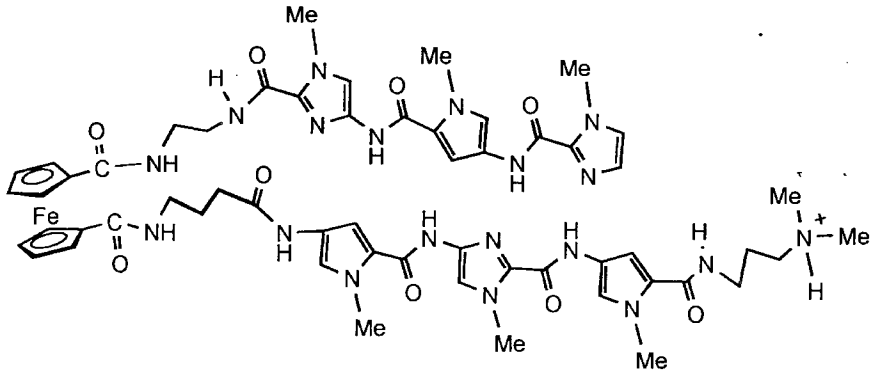
~~[Chemical Formula 12]~~



(1b)

13. (Withdrawn - Currently Amended) The ferrocene compound represented by the following formula (1c):

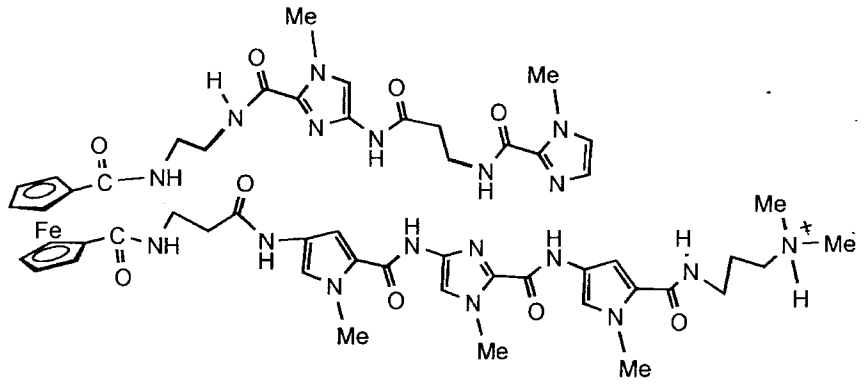
~~[Chemical Formula 13]~~



(1c)

14. (Currently Amended) The ferrocene compound represented by the following formula (2):

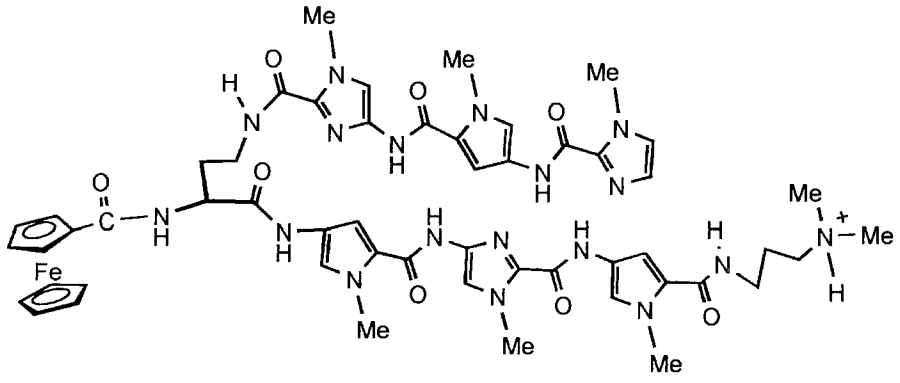
~~[Chemical Formula 14]~~



(2)

15. (Withdrawn - Currently Amended) The ferrocene compound represented by the following formula (3):

~~[Chemical Formula 15]~~



(3)

16. (Withdrawn - Currently Amended) A method for the production of the ferrocene compound according to Claim 1, comprising a condensation step with the use of ferrocene

methyl dicarboxylate, aminoferrocene methyl carboxylate or ferrocene carboxylic acid as a ~~staring~~ starting material.

17. (Previously Presented) A ligand consisting of the ferrocene compound according to Claim 1 for sequence-specific detection of double-stranded nucleic acid molecules.

18. (Withdrawn) A method for the electrochemical detection of double-stranded nucleic acid molecules with the use of a compound that can sequence-specifically bind to the double-stranded nucleic acid molecules.

19. (Withdrawn) A method for electrochemical detection of double-stranded nucleic acid molecules according to Claim 18 with the use of the ligand according to Claim 17.

20. (Withdrawn - Currently Amended) The method according to Claim 16 which uses the ligand according to Claim 17 wherein each pair of ~~"V" and "X"~~ V and X located in the ~~general~~ formula (I) at a position corresponding to G/C and A/T (U) base pairs in subject double-stranded nucleic acid molecules is composed of imidazole derivative/pyrrole derivative and pyrrole derivative/pyrrole derivative, respectively.

21. (Withdrawn) A method for electrochemical detection according to Claim 18 wherein the double-stranded nucleic acid molecules are formed on solid phase.

22. (Withdrawn) A method for electrochemical detection according to Claim 21, which uses DNA microarray.

23. (Withdrawn) A method for the detection of single nucleotide polymorphism (SNP) by the method for electrochemical detection according to Claim 18.

24. (Withdrawn) An apparatus or device for the electrochemical detection with the use of the ligand for sequence-specific detection of double-stranded nucleic acid according to Claim 17.

25. (Withdrawn) The apparatus or device for the electrochemical detection according to Claim 24, which is DNA microarray.